Project Title	Funding	Strategic Plan Objective	Institution
Neurobiology of Aggression Co-morbidity in Mouse Model of Idic15 Autism	$217,500	Q2.S.E	BETH ISRAEL DEACONESS MEDICAL CENTER
Neurobiological Mechanism of 15q11-13 Duplication Autism Spectrum Disorder	$376,818	Q2.S.D	BETH ISRAEL DEACONESS MEDICAL CENTER
TMLHE deficiency and a carnitine hypothesis for autism	$0	Q2.S.D	Baylor College of Medicine
Engrailed targets and the control of synaptic circuits in Drosophila	$371,250	Q2.Other	UNIVERSITY OF PUERTO RICO MED SCIENCES
Autism phenotypes in Tuberous Sclerosis: Risk factors, features & architecture	$149,044	Q2.S.D	King's College London
Genetic and Developmental Analyses of Fragile X Mental Retardation Protein	$394,554	Q2.S.D	Vanderbilt University
Caspr2 as an autism candidate gene: a proteomic approach to function & structure.	$318,000	Q2.Other	RBHS-ROBERT WOOD JOHNSON MEDICAL SCHOOL
Tet-mediated Epigenetic Modulation in Autism	$684,145	Q2.S.D	Emory University
Analysis of autism linked genes in C. elegans	$62,500	Q2.Other	Massachusetts General Hospital
Revealing protein synthesis defects in Fragile X Syndrome with new chemical tools	$347,427	Q2.S.D	Stanford University
Functional and anatomical recovery of synaptic deficits in a mouse model of Angelman Syndrome	$0	Q2.S.D	University of North Carolina
Elucidating the Function of Class 4 Semaphorins in GABAergic Synapse Formation	$333,553	Q2.Other	BRANDEIS UNIVERSITY
MeCP2 Modulation of BDNF Signaling: Shared Mechanisms of Rett and Autism	$371,057	Q2.S.D	UNIVERSITY OF ALABAMA AT BIRMINGHAM
Met Signaling in Neural Development and Circuitry Formation	$238,640	Q2.Other	UNIVERSITY OF ARIZONA
Protein Interaction Network Analysis to Test the Synaptic Hypothesis of Autism	$90,000	Q2.Other	MAYO CLINIC ROCHESTER
Autism and the insula: Genomic and neural circuits	$0	Q2.Other	California Institute of Technology
Neural Correlates of the Y Chromosome in Autism: XYY Syndrome as a Genetic Model	$290,609	Q2.S.D	Children's Hospital of Philadelphia
A cerebellar mutant for investigating mechanisms of autism in Tuberous Sclerosis	$149,937	Q2.S.D	Boston Children's Hospital
Dysregulation of Protein Synthesis in Fragile X Syndrome	$1,060,826	Q2.S.D	National Institutes of Health
Function of Neurexins	$488,615	Q2.Other	Stanford University
Aberrant synaptic form and function due to TSC-mTOR-related mutation in autism spectrum disorders	$0	Q2.S.D	Columbia University
Presynaptic Fragile X Proteins	$249,000	Q2.S.D	DREXEL UNIVERSITY
Genetic studies of autism-related Drosophila neurexin and neuroligin	$0	Q2.Other	University of Texas Health Science Center, San Antonio
Dissecting Epistasis and Pleiotropy in Autism towards Personalized Medicine	$83,334	Q2.S.G	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
Dynamic regulation of Shank3 and ASD	$616,945	Q2.Other	Johns Hopkins University

Project Title	Funding	Strategic Plan Objective	Institution
Modeling multiple heterozygous genetic lesions in autism using Drosophila melanogaster	$202,745	Q2.Other	University of California, Los Angeles
Allelic Choice in Rett Syndrome	$390,481	Q2.S.D	WINIFRED MASTERSON BURKE MED RES INST
Activity-dependent phosphorylation of MeCP2	$177,055	Q2.S.D	HARVARD MEDICAL SCHOOL
Inhibitory mechanisms for sensory map plasticity in cerebral cortex.	$323,873	Q2.Other	University of California, Berkeley
Functional analysis of EPHB2 mutations in autism - Project 1	$90,616	Q2.Other	Yale University
Dysregulation of mTOR Signaling in Fragile X Syndrome	$487,251	Q2.S.D	ALBERT EINSTEIN COLLEGE OF MEDICINE
Bi-directional regulation of Ube3a stability by cyclic AMP-dependent kinase	$0	Q2.S.D	University of North Carolina
Role of CNTNAP2 in neuronal structural development and synaptic transmission	$0	Q2.Other	Stanford University
Biology of Non-Coding RNAs Associated with Psychiatric Disorders	$415,143	Q2.Other	UNIVERSITY OF SOUTHERN CALIFORNIA
Identification of genetic pathways that regulate neuronal circuits in C. elegans	$51,530	Q2.Other	UNIVERSITY OF CALIFORNIA SAN DIEGO
The role of the GRIP protein complex in AMPA receptor trafficking and autism spectrum disorders	$45,000	Q2.Other	Johns Hopkins University
DISRUPTION OF TROPHIC INHIBITORY SIGNALING IN AUTISM SPECTRUM DISORDERS	$0	Q2.Other	NORTHWESTERN UNIVERSITY
The role of the new mTOR complex, mTORC2, in autism spectrum disorders	$0	Q2.Other	Baylor College of Medicine
Functional analysis of EPHB2 mutations in autism	$124,950	Q2.Other	MCLEAN HOSPITAL
RNA dysregulation in autism	$250,000	Q2.Other	Rockefeller University
Understanding the Role of Epac2 in Cognitive Function	$47,676	Q2.Other	NORTHWESTERN UNIVERSITY
Dual modulators of GABA-A and Alpha7 nicotinic receptors for treating autism	$0	Q2.Other	University of California, Irvine
Multigenic basis for autism linked to 22q13 chromosomal region	$249,999	Q2.S.D	Hunter College of the City University of New York (CUNY) jointly with Research Foundation of CUNY
High metabolic demand of fast-spiking cortical interneurons underlying the etiology of autism	$0	Q2.Other	Weill Cornell Medical College
Connections between autism, serotonin and hedgehog signaling	$0	Q2.S.D	Medical Research Council-National Institute for Medical Research
Semaphorin4D and PlexinB1 mediate GABAergic synapse development in mammalian CNS	$14,920	Q2.Other	BRANDEIS UNIVERSITY
Novel candidate mechanisms of fragile X syndrome	$248,873	Q2.S.D	UNIVERSITY OF MICHIGAN
Dendritic 'translatome' in fragile X syndrome and autism	$60,000	Q2.S.D	University of Michigan
Physiological studies in a human stem cell model of 15q duplication syndrome	$0	Q2.S.D	University of Connecticut

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Genetic model to study the ASD-associated gene A2BP1 and its target PAC1	$62,500	Q2.Other	Weizmann Institute of Science
Studying Rett and Fragile X syndrome in human ES cells using TALEN technology	$30,000	Q2.S.D	Whitehead Institute for Biomedical Research
Probing synaptic receptor composition in mouse models of autism	$249,994	Q2.S.D	Boston Children's Hospital
Shank3 in Synaptic Function and Autism	$401,250	Q2.Other	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Interneuron subtype-specific malfunction in autism spectrum disorders	$240,000	Q2.Other	New York University
BDNF and the Restoration of Synaptic Plasticity in Fragile X and Autism	$453,289	Q2.S.D	University of California, Irvine
A functional genomic analysis of the cerebral cortex	$142,273	Q2.Other	University of California, Los Angeles
Neurotrophic Factor Regulation of Gene Expression	$615,631	Q2.S.D	HARVARD MEDICAL SCHOOL
The role of UBE3A in autism	$125,001	Q2.S.D	Harvard Medical School
Molecular signatures of autism genes and the 16p11.2 deletion	$0	Q2.Other	Massachusetts General Hospital
Role of MEF2 and neural activity in cortical synaptic weakening and elimination	$387,160	Q2.S.D	UT SOUTHWESTERN MEDICAL CENTER
Mechanisms of mGluR5 function and dysfunction in mouse autism models	$405,319	Q2.S.D	UT SOUTHWESTERN MEDICAL CENTER
Mechanisms of synapse elimination by autism-linked genes	$150,000	Q2.S.D	University of Texas Southwestern Medical Center
Protein network of high risk copy number variants for psychiatric disorders	$227,135	Q2.Other	UNIVERSITY OF CALIFORNIA SAN DIEGO
Analysis of Shank3 Complete and Temporal and Spatial Specific Knockout Mice	$425,202	Q2.Other	Duke University
Engrailed genes and cerebellum morphology, spatial gene expression and circuitry	$657,501	Q2.S.G	SLOAN-KETTERING INST CAN RESEARCH
Dysregulated Translation and Synaptic Dysfunction in Medium Spiny Neurons of Autism Model Mice	$66,667	Q2.Other	New York University
THE ROLE OF MECP2 IN RETT SYNDROME	$100,000	Q2.S.D	University of California, Davis
THE ROLE OF MECP2 IN RETT SYNDROME	$353,130	Q2.S.D	University of California, Davis
Mechanisms of Autonomic Brainstem Development	$243,000	Q2.Other	Children's Hospital Los Angeles
Function and Structure Adaptations in Forebrain Development	$662,342	Q2.Other	Children's Hospital Los Angeles
A Family-Genetic Study of Autism and Fragile X Syndrome	$632,570	Q2.S.D	NORTHWESTERN UNIVERSITY
Role of endosomal NHE6 in brain connectivity and autism	$0	Q2.Other	Brown University

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Project 4: Calcium Signaling Defects in Autism (Pessah/Lein)	$107,377	Q2.Other	University of California, Davis
Neuroligin, oxidative stress and autism	$75,000	Q2.Other	Oklahoma Medical Research Foundation
The Impact of Pten Signaling on Neuronal Form and Function	$405,000	Q2.Other	DARTMOUTH COLLEGE
A novel transplantation assay to study human PTEN ASD alleles in GABAergic interneurons	$0	Q2.Other	University of California, San Francisco
Molecular mechanisms of the synaptic organizer alpha-neurexin	$388,750	Q2.Other	UNIVERSITY OF TEXAS MEDICAL BR GALVESTON
Impact of SynGAP1 Mutations on Synapse Maturation and Cognitive Development	$614,568	Q2.Other	SCRIPPS FLORIDA
Cortactin and Spine Dysfunction in Fragile X	$33,319	Q2.S.D	University of California, Irvine
Molecular Dissection of Calmodulin Domain Functions	$321,473	Q2.Other	UNIVERSITY OF IOWA
Motor cortex plasticity in MeCP2 duplication syndrome	$62,500	Q2.S.D	Baylor College of Medicine
Why are autistic females rare and severe? An approach to autism gene identification.	$0	Q2.S.B	Johns Hopkins University
The Striatal Circuitry Underlying Autistic-Like Behaviors	$32,419	Q2.Other	Duke University
Modulation of RhoA Signaling by the mRNA Binding Protein hnRNPQ1	$31,356	Q2.Other	Emory University
Translational Regulation of Adult Neural Stem Cells	$372,621	Q2.S.D	University of Wisconsin
Imaging of protein synthesis and ubiquitination in fragile x syndrome	$234,000	Q2.S.D	Emory University
Targeting the PI3K Enhancer PIKE to Reverse FXS-associated Phenotypes	$206,000	Q2.S.D	Emory University
Next Generation Gene Discovery in Familial Autism	$653,540	Q3.L.B	University of Washington
Using fruit flies to map the network of autism-associated genes	$62,498	Q2.Other	University of California, San Diego
HIGH THROUGHPUT SCREEN FOR SMALL MOLECULE PROBES FOR NEURAL NETWORK DEVELOPMENT	$405,000	Q2.Other	Johns Hopkins University
Genetically defined stem cell models of Rett and fragile X syndrome	$175,000	Q2.S.D	Whitehead Institute for Biomedical Research
TrkB agonist therapy for sensorimotor dysfunction in Rett syndrome	$147,806	Q2.S.D	Case Western Reserve University
Monoallelic expression in neurons derived from induced pluripotent stem cells	$414,150	Q2.Other	ALBERT EINSTEIN COLLEGE OF MEDICINE
Neurobiology of RAI1, the causal gene for Smith-Magenis syndrome	$0	Q2.S.D	Stanford University
Mesocorticolimbic dopamine circuitry in mouse models of autism	$174,944	Q2.S.D	Stanford University

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Frontostriatal Synaptic Dysfunction in a Model of Autism	$55,094	Q2.Other	Stanford University
Phagocytosis is misregulated in a Drosophila model of Fragile X syndrome	$27,349	Q2.S.D	Columbia University
Modeling Pitt-Hopkins Syndrome, an Autism Spectrum Disorder, in Transgenic Mice Harboring a Pathogenic Dominant Negative Mutation in TCF4	$30,000	Q2.S.D	University of North Carolina
New Models For Astrocyte Function in Genetic Mouse Models of Autism Spectrum Diso	$396,250	Q2.S.D	CLEVELAND CLINIC LERNER COM-CWRU
Mechanisms Underlying the Cerebellar Contribution to Autism in Mouse Models of Tu	$190,458	Q2.S.D	CHILDREN'S HOSPITAL CORPORATION
MRI Biomarkers of Patients with Tuberous Sclerosis Complex and Autism	$716,468	Q2.S.D	CHILDREN'S HOSPITAL CORPORATION
Phenotypic Characterization of MECP2 Mice	$66,830	Q2.S.D	Children's Hospital of Philadelphia
Signaling mechanisms in cerebellar development and function	$494,324	Q2.Other	Vanderbilt University
Interrogating Synaptic Transmission in Human Neurons	$0	Q2.Other	Stanford University
Corticogenesis and Autism Spectrum Disorders: New Hypotheses on Transcriptional Regulation of Embryonic Neurogenesis by FGFs from In Vivo Studies and RNA-sequencing Analysis of Mouse Brain	$0	Q2.Other	Yale University
Functional Genomics of Human Brain Development	$1,338,015	Q2.Other	Yale University
Neural Correlates of the Y Chromosome in Autism: XYY Syndrome as a Genetic Model	$153,479	Q2.S.D	Nemours Children's Health System, Jacksonville
A Novel Glial Specific Isoform of Cdkl5: Implications for the Pathology of Autism in Rett Syndrome	$0	Q2.S.D	University of Nebraska
Fragile X syndrome target analysis and its contribution to autism	$249,272	Q2.S.D	Vanderbilt University
Wnt modulation as a treatment for Autism Spectrum Disorders	$222,318	Q2.Other	UNIVERSITY OF IOWA
Foxp2 regulation of sex specific transcriptional pathways and brain development	$88,128	Q2.S.B	University of Maryland
Role of GABA interneurons in a genetic model of autism	$187,455	Q2.S.D	Yale University
mTOR modulation of myelination	$179,659	Q2.S.D	Vanderbilt University
Dissecting neural mechanisms integrating multiple inputs in C. elegans	$453,240	Q2.Other	SALK INSTITUTE FOR BIOLOGICAL STUDIES
Role of Neurexin in Synapse Formation and Maintenance	$56,978	Q2.Other	Stanford University
Beta-catenin signaling in autism spectrum disorders	$0	Q2.S.G	University of Illinois at Chicago
A Novel Essential Gene for Human Cognitive Function	$35,030	Q2.S.D	HARVARD MEDICAL SCHOOL
Investigating the Role of RBFOX1 in Autism Etiology	$30,000	Q2.Other	University of Miami

Project Title	Funding	Strategic Plan Objective	Institution
Mouse Model of Dup15q Syndrome	$670	Q2.S.D	Texas AgriLife Research
Translation, Synchrony, and Cognition	$376,430	Q2.S.D	New York University
Optogenetic treatment of social behavior in autism	$385,000	Q2.Other	University of California, Los Angeles
Analysis of MEF2 in Cortical Connectivity and Autism-Associated Behaviors	$53,282	Q2.S.D	MCLEAN HOSPITAL
Perturbation of Excitatory Synapse Formation in Autism Spectrum Disorders	$30,000	Q2.Other	Max Planck Florida Institute for Neuroscience
Disruption of Reelin biosynthesis by de novo missense mutations found in aut	$33,059	Q2.Other	UPSTATE MEDICAL UNIVERSITY
A Role for Cytoplasmic Rbfox1/A2BP1 in Autism	$30,000	Q2.Other	University of California, Los Angeles
Using Drosophila to Characterize the Molecular Pathogenesis of Autism	$195,000	Q2.Other	MASSACHUSETTS INSTITUTE OF TECHNOLOGY
Cytoplasmic Functions of Rbfox1, a Candidate Autism Gene	$192,500	Q2.Other	University of California, Los Angeles
a-Actinin Regulates Postsynaptic AMPAR Targeting by Anchoring PSD-95	$30,000	Q2.Other	University of California, Davis
Role of LIN28/let-7 axis in autism	$125,000	Q2.Other	Johns Hopkins University
Molecular mechanisms of electrical synapse formation in vivo	$90,000	Q2.Other	FRED HUTCHINSON CANCER RESEARCH CENTER
Investigating role of neurexin-1 mutation in autism using human induced neurons	$53,282	Q2.Other	Stanford University
Role of UBE3A in the Central Nervous System	$321,269	Q2.S.D	University of North Carolina
Impact of NR2B mutations on NMDA receptors and synapse formation	$0	Q2.Other	Case Western Reserve University
Sex-Specific Gene-Environment Interactions Underlying ASD	$0	Q2.S.B	Rockefeller University
Pathogenic roles of paternal-age-associated mutations in autism	$125,000	Q2.Other	Weill Cornell Medical College
Restoring cortical plasticity in a Rett mouse model	$0	Q2.S.D	Stanford University
Cortical inhibition and disrupted vocal perception in MeCP2 +/- mice	$81,970	Q2.S.D	Cold Spring Harbor Laboratory
CNTNAP2 regulates production, migration and organization of cortical neurons	$124,996	Q2.Other	Memorial Sloan-Kettering Cancer Center
Autism Linked LRRTM4-Heparan Sulphate Proteoglycan Complex Functions in Synapse Development	$30,000	Q2.S.G	University of British Columbia
Matrix metalloproteinases expression in autism spectrum disorders	$0	Q2.Other	University of Naples
MicroRNAs in Synaptic Plasticity and Behaviors Relevant to Autism	$131,220	Q2.S.D	Massachusetts General Hospital

Project Title	Funding	Strategic Plan Objective	Institution
Translational dysregulation in autism pathogenesis and therapy	$125,000	Q2.S.D	Massachusetts General Hospital
Bidirectional Tyrosine Kinase Signaling	$614,042	Q2.Other	UT SOUTHWESTERN MEDICAL CENTER
The PI3K Catalytic Subunit p110delta as Biomarker and Therapeutic Target in Autism and Schizophrenia	$15,000	Q2.Other	Cincinnati Children's Hospital Medical Center
Dissecting Reciprocal CNVs Associated With Autism	$30,000	Q2.Other	Duke University
UBR7 is a novel chromatin directed E3 ubiquitin ligase	$194,545	Q2.Other	UNIVERSITY OF VIRGINIA
Role of Draxin in Forebrain Connectivity and Complex Behaviors	$216,128	Q2.Other	WADSWORTH CENTER
The Elongation Hypothesis of Autism	$752,400	Q2.Other	University of North Carolina
The Role of Glia in Fragile X Syndrome	$60,000	Q2.S.D	Johns Hopkins University
Role of autism-associated chromatin remodeler Brg1 in neuronal development	$238,500	Q2.Other	UT SOUTHWESTERN MEDICAL CENTER
MAGEL2, a candidate gene for autism and Prader-Willi syndrome	$52,224	Q2.S.D	University of Alberta
Variation in Neuroligin Concentration and Presynaptic Functional Development	$196,979	Q2.Other	UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
A Novel GABA Signalling Pathway in the CNS	$25,000	Q2.Other	MCLEAN HOSPITAL
Dysregulation of Mdm2-mediated p53 ubiquitination in autism mouse models	$60,000	Q2.S.D	University of Illinois at Chicago
Probing the Molecular Mechanisms Underlying Autism: Examination of Dysregulated Protein Synthesis	$51,400	Q2.S.D	National Institutes of Health
Striatal Specific Alterations in Translation, Synaptic Function, and Behavior in	$81,581	Q2.Other	New York University
TSC/mTOR Signaling in Adult Hippocampal Neurogenesis: Impact on Treatment and Behavioral Models of Autism Spectrum Disorders in Mice	$0	Q2.Other	University of California, Los Angeles
Sexually dimorphic gene-expression and regulation to evaluate ASD sex bias	$62,500	Q2.S.B	University of California, San Francisco
Undergraduate Research Award	$3,000	Q2.S.G	Harvard University
Undergraduate Research Award	$3,000	Q2.S.G	Rutgers University
The Interplay Between Human Astrocytes and Neurons in Psychiatric Disorders	$0	Q2.Other	University of California, San Diego
Modeling Microglial Involvement in Autism Spectrum Disorders, with Human Neuro-glial Co-cultures	$0	Q2.S.D	Whitehead Institute for Biomedical Research
Mechanisms and Rescue of Neural Circuit Dysfunction in Mecp2 Mutant Mice	$92,578	Q2.S.D	BAYLOR COLLEGE OF MEDICINE
Timed mRNA translation events in neocortical development and neurodevelopmental disorders	$39,276	Q2.Other	RBHS-ROBERT WOOD JOHNSON MEDICAL SCHOOL

Project Title	Funding	Strategic Plan Objective	Institution
Identification and validation of genetic variants which cause the Autism Macrocephaly subphenotype	$29,500	Q2.S.G	University of California, Los Angeles
Molecular control of prefrontal cortical circuitry in autism	$254,250	Q2.Other	ICAHN SCHOOL OF MEDICINE AT MOUNT SINAI
Regulation of cortical circuits by tsc1 in GABAergic interneurons	$59,113	Q2.S.B	Yale University
Functional analysis of Neuroligin-Neurexin interactions in synaptic transmission	$336,875	Q2.Other	University of Massachusetts, Worcester
Dissecting the 16p11.2 CNV endophenotype in induced pluripotent stem cells	$51,400	Q2.S.D	University of California, San Francisco
Investigating the role of Tsc1 in neocortical circuit assembly	$47,114	Q2.S.D	Stanford University
Identification of TSC cellular phenotypes using patient-derived iPSCs	$229,322	Q2.S.D	Rutgers University
Abnormalities in signal transduction in autism	$20,000	Q2.S.A	New York State Institute for Basic Research in Developmental Disabilities
Reducing Diversity at the Gamma Protocadherin Locus by CRISPR Targeting	$275,342	Q2.Other	JACKSON LABORATORY
Signaling Pathways that Regulate Excitatory-inhibitory Balance	$0	Q2.Other	University of California, San Diego
Regulation of SK2 channels by UBE3A	$425,708	Q2.Other	WESTERN UNIVERSITY OF HEALTH SCIENCES
PHENOTYPING ASTROCYTES IN HUMAN NEURODEVELOPMENTAL DISORDERS	$386,750	Q2.Other	Stanford University